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New Surgical Techniques Correct Deformed Faces

By David Williamson

When Cathy Johnson of Hillsborough was born 19 years ago, some unexplained genetic quirk resulted in her having a deformed face.

Cathy's five sisters were born with normal appearances, but Cathy suffered from hypertelorism, a congenital defect that caused her eyes to be set twice as far apart on her face as they should have been. Hypertelorism is a rarity, occurring only once in every 10,000 births.

As soon as Cathy was old enough to recognize her deformity, she became aware of the taunts of other children and the stares of insensitive adults.

"The kids called me 'pieface' and 'dishface' and 'bignose,'" the shy high school senior said. "I never had any friends."

Retreat from Social Contacts

She retreated from social contacts, progressed slowly in school and never had a date.

While Cathy had nothing to do with causing her facial disfigurement, Cary Mills of Richlands, had everything to do with his own.

Before breakfast on a frosty February morning last year, Mills took his shotgun from its rack to shoot at some marauding dogs that had gotten into the chicken coop behind his house. Inside the coop he stumbled, tripping the trigger of the shotgun. The blast destroyed his jaw, turning it into a bloody pulp.

No More Hunting

"I've always been a hunter," the retired farmer said. "But I ain't had

much feeling for hunting since my accident."

Until a couple of years ago, Cathy Johnson and Cary Mills would have had to finish their lives with grotesque faces that drew startled attention.

Now, with the help of new surgical techniques being developed at Duke and other medical institutions in the United States and abroad, the two have more nearly normal features.

And in Cathy's case, the small, new scars she wears on her face have begun to help heal the large scars she has worn in her heart all her life.

French Surgeon First

The craniofacial surgery the young woman underwent was first done by a French surgeon named Paul Tessier in the late 1960s. Duke's Dr. Nicholas Georgiade, chief of the Division of Plastic and Maxillofacial Surgery, made several trips abroad to study with the Frenchman in Paris.

Last year, Dr. Calvin Peters of Georgiade's staff also went to Paris to learn from Tessier. Last November, Peters headed a team that performed the first hypertelorism operation in the Carolinas on Cathy Johnson.

Duke surgeons have done more than 3,000 operations affecting facial bones in the past 20 years, but never one so complicated, Georgiade said.

First of Kind

When Dr. Donald Serafin, another Duke plastic surgeon, rebuilt Mills' jaw using a microscope and bone grafts and soft tissue from the patient's rib cage, he may have performed the first successful operation of its kind.

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RIGHT ON, SIS—Cathy Johnson, who underwent facial surgery at Duke, reads to her little sister, Portland, 6, at their home in Hillsborough. Cathy was born suffering from a rare defect that caused her eyes to be set much farther apart than normal. Recently developed surgical techniques enabled the condition to be corrected. (Photo by Jim Wallace)

Leonardo's Models Shown at Med Center

Working models of Leonardo da Vinci's designs for a helicopter, a military tank and a clock are among items on exhibit during August in the lobby of the Seeley G. Mudd Building.

The 15 models are part of a touring exhibit built by IBM Corporation according to Leonardo's scientific and technical drawings.

"Most people probably think of Leonardo as a painter, but he was also a remarkable engineer," commented Terry Cavanagh, curator of the History of Medicine collection.

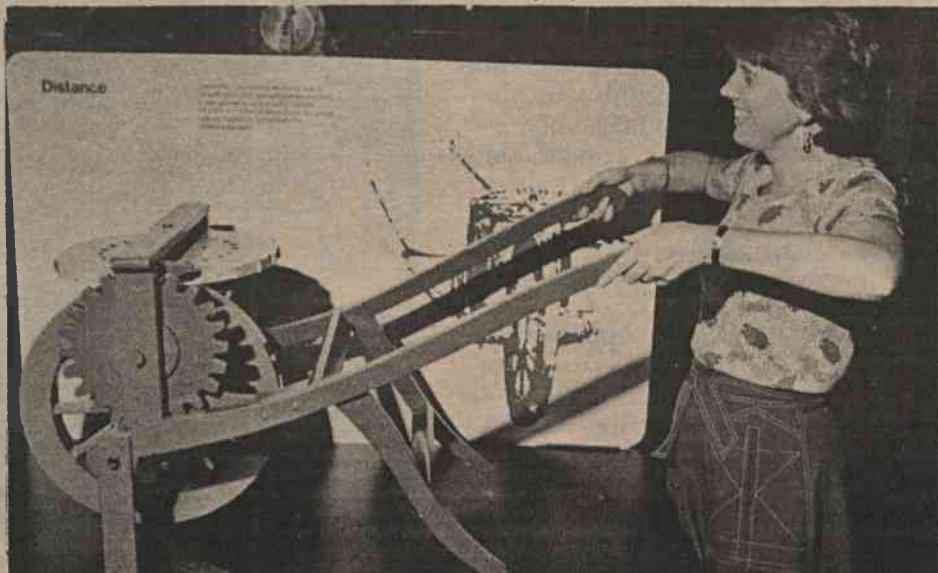
"In most cases his designs were never put to use," Cavanagh said. "Although they were applications of principles that are now well-established, they were very impractical. For instance, with all its vast array of cannon, the tank would have weighed hundreds of tons. The hand cranks Leonardo designed for men to work couldn't have turned the wheels to move the tank.

"The exhibit indicates the tremendous range of interests and accomplishments of the fifteenth century genius," Cavanagh said.

Other models include a paddle-wheel, a parachute, a flying machine, a scaling ladder, a hygrometer to measure humidity of the atmosphere, an odometer to

record distance and an anemometer to measure the force of the wind.

The library's edition of Leonardo's anatomical drawings is also on display.



IT'S NOT A WHEELBARROW—The device that Kathy Kruse appears to be pushing is the forerunner of the modern odometer that tells your car's mileage. Designed by the 15th century Italian genius, Leonardo da Vinci, it is part of a collection of Leonardo's inventions now on exhibit in the Seeley G. Mudd Building. Miss Kruse is head of the reference section of the medical library. Other photos from the exhibit are on page 3. (Photos by Thad Sparks)

Grad Nurses Receive Hoods

Eleven nursing students will receive their master's hoods at a recognition ceremony tonight at 7:30 in the Ann Jacobansky Auditorium of the School of Nursing.

Dean Ruby Wilson will present the hoods to symbolize completion of the 12-month Master of Science in Nursing program. Degrees will be awarded officially Sept. 1.

A reception will follow the brief ceremony in the nursing school.

Students completing the graduate nursing program are Nancy Alexander of Durham, Dorothy Duffey of Raleigh, Martha Greene of Alderson, W.Va., Barbara Jenkins of Reidsville and Cynthia Mullen of Durham.

Others are Elaine Mullen of Ontario, Canada, Joanne Price of Richmond, Va., Ellen Smith of Ft. Collins, Colo., Rosemary Vann of Raleigh, Vedica Woods of Durham, and Caryl Zollman of Silver Spring, Md.